Palliative/Supportive Care for the Patient with Cancer

SUMMARY
Cancer-associated malnutrition results in weight loss and a decline in lean body mass. Patients and families desire assistance in managing nutrition-related symptoms to maintain strength, energy and quality of life. Guidance is provided on handling side effects of treatment, dietary intake, and helping the patient to maintain control. Recent studies demonstrate early supportive care including nutrition can improve survival.

SCIENTIST BIOGRAPHY

Dr. Anne Coble Voss joined Abbott Nutrition in 1993 and is an Associate Research Fellow in the prestigious Volwiler Society of Abbott Laboratories.

Dr. Voss has international experience in the creation of guidelines for oncology and serves on the Oncology Evidence Analysis Library work group for the Academy of Nutrition and Dietetics. She has extensive experience in nutrition research in patients with cancer induced weight loss and has developed novel product for adults with cancer induced weight loss.

Prior to joining Abbott Nutrition, Dr. Voss worked for the College of Medicine, The Ohio State University, The Ohio State University Medical Center, and Johns Hopkins Hospital. She has published over 75 journal articles, monographs, and book chapters, and is listed in *Who's Who in the World* for her discovery of the *de novo* biosynthetic pathway of the omega-3 fatty acid, DHA (docosahexaenoic acid), important in the development of brain and retina in newborn babies.

Dr. Voss earned her undergraduate degree in Medical Dietetics and a PhD in nutritional biochemistry from The Ohio State University. She recently received the Distinguished Alumni Award from The Ohio State University, a President's Award, and a Luminary Award from Abbott Laboratories.

Mary Ann Cockram joined Abbott Nutrition in 2003 and is a Research Scientist in Scientific and Medical Affairs. She provides clinical support and nutrition science education to both internal and external customers for the adult therapeutic critical care, renal, and oncology products.

Mary Ann earned a Bachelor of Science degree in Home Economics from Valparaiso University in Valparaiso, Indiana, and a Master of Science degree in Clinical Nutrition from Rush University in Chicago, Illinois. Her previous clinical experience includes working with adult patients in the hospital, nursing home, and clinical research settings. Mary Ann is a member of the Academy of Nutrition and Dietetics and the American Society for Parenteral and Enteral Nutrition.

INTRODUCTION

Palliative or supportive care may be offered to a patient when all means of curative intent have been exhausted. A program dedicated to symptom control that includes nutrition intervention may help improve quality of life and functioning in advanced cancer patients[1]. Benefits in a variety of cancer types have been shown[2,3]. Patients and families struggling with advanced cancer, as well as their physicians, highly value the control of symptoms, maintenance of nutrition, function and improvement in quality of life[4-6].

Nutrition is an important component in the care and management of patients with advanced cancer[7].

- The focus of nutrition care is to manage nutrition-related symptoms and adverse effects.
- The aim of nutrition care is to maintain the patient's strength and energy so as to enhance quality of life, foster independence, and promote the ability to perform activities of daily living (ADLs).

Nutrition should be provided as tolerated with emotional support, respect, and an awareness of the individual patient's needs and wishes. The pleasurable aspects of eating should be emphasized, with less concern for the quantity or nutrient content of foods consumed[8].

COUNSELING SUGGESTIONS

Suggestions for providing counseling to the patient and family include the following[9-14]

- Provide intervention when symptoms and adverse effects, such as pain, constipation, diarrhea, nausea, or discomfort associated with eating, diminish the patient's quality of life
- Encourage patients to take pain and supportive care medications as prescribed or contact their health care provider to modify regimens. Pain can greatly interfere with a patient's appetite.
- Prepare and offer small portions of foods. Patients may not have an interest in eating leftovers.
- Encourage the patient to eat small, more frequent meals, which may be better tolerated than three large meals a day.
- Provide favorite foods while monitoring the patient's current likes and dislikes. Tastes and preferences frequently change.
- Recommend foods that require minimal handling and effort to eat.
- Offer all varieties of beverages and liquids to help with hydration.
- Oral nutrition supplements are nutritionally concentrated, easy to swallow, and may help with hydration.
- When possible, encourage the patient to make eating a more pleasant experience by sharing meals with others, at a table, and without the presence of interfering medical equipment.
- Help patients focus on the idea of "eating for strength" instead of eating based on appetite.
- Allow the patient to control how much and how often he or she eats. If the patient does not feel like eating, do not force food; simply remove it without comment.
- Encourage activity as tolerated to stimulate appetite.
- Support the patient's decision to request or decline nutrition support.

- Reassure patients that you understand about choices they are making in regards to food and their health. Symptom management and the patient's comfort are key to supporting the patient's wishes.

BEST SUPPORTIVE CARE

Best supportive care is becoming an important aspect of anti-cancer treatment to achieve optimal results. Patients who experience cancer induced weight loss may experience malnutrition. Malnutrition is defined as "a state of nutrition in which a deficiency (or imbalance) of energy, protein and other nutrients cause measureable adverse effect on tissue/body form (body shape, size and composition) and function and clinical outcome"[15]. The consequences of malnutrition can include impaired immune response[16], reduced muscle strength[17,18], increased fatigue[19], impaired wound healing[16], impaired psycho-social function[19], reduced quality of life[20-22], reduced response and tolerance to prescribed oncology treatment[23], and potentially increased costs of health care and hospital length of stay[24]. Early identification of cancer-associate malnutrition and intervention is imperative for improved outcomes[25].

Palliative care is more than symptom control. Much of the current literature in advanced cancer concludes that **early** palliative/supportive care can improve quality of life and survival[26]. These outcomes were better in patients receiving a systematic, multi-disciplinary approach to palliative care that included nutrition support. The problem comes in defining when a patient is terminal. It is challenging to determine when there is no longer a benefit to nutrition support as part of palliative care. Therapeutic nutrition interventions may provide improved quality of life[21] and survival[22] but should always be guided by the patient's wishes to provide symptom control vs. more aggressive nutrition intervention.

CANCER CACHEXIA

Patients may have a cachexia syndrome in addition to malnutrition. Cachexia does not mean end of life or hospice. There are three stages of cancer cachexia: Pre-cachexia, cachexia and refractory cachexia[27]. Nutrition assessment and intervention is most effective if provided in the states of pre-cachexia and cachexia. The metabolic response to cancer is heterogeneous, so it is important to intervene and manipulate the factors that are behavior-related, to address the direct causes of decreased intake (obstruction, dysphagia) and address the secondary causes (pain, depression, fatigue, gastrointestinal function) because "symptom management alone can improve survival in patients with advanced cancer".[28] The stages of cancer cachexia are described below (Table 1).

In pre-cachexia, early clinical and metabolic signs such as loss of appetite and impaired glucose tolerance are present. These signs can precede substantial involuntary weight loss (i.e., up to 5%). The risk of progression is variable and depends on cancer type, stage, presence of systemic inflammation, low food intake and lack of response to anti-cancer therapy[27]. The focus must change from end-stage wasting to supporting patients' nutritional and functional state throughout the increasingly complex and prolonged course of anti-cancer treatment. When inadequate intake predominates (malnutrition), this can be managed by conventional nutritional support. In the presence of systemic inflammation or altered metabolic state (cachexia), a multi-modal approach including novel therapeutic agents may be required.

"For all patients, oncologists should consider three supportive care issues: ensuring sufficient energy and protein intake, maintaining physical activity to maintain muscle mass and (if present) reducing systemic inflammation."[29]

Table 1. Stages of Cancer Cachexia

Pre-cachexia: Characterized by early clinical and metabolic signs such as loss of appetite and impaired glucose tolerance; can precede substantial involuntary weight loss (i.e., up to 5%). The risk of progression is variable and depends on cancer type, stage, presence of systemic inflammation, low food intake and lack of response to anti-cancer therapy.

Cancer cachexia: A multi-factorial syndrome characterized by an ongoing loss of skeletal muscle mass (with or without loss of fat mass) that cannot be fully reversed by conventional nutritional support and leads to progressive functional impairment. The pathophysiology is characterized by a negative protein and energy balance driven by a variable combination of reduced food intake and abnormal metabolism.

Refractory cachexia: May be a result of very advanced cancer (pre-terminal) or the presence of rapidly progressive cancer unresponsive to anti-cancer therapy. This stage is associated with active catabolism or the presence of factors that make active management of weight loss no longer possible or appropriate. Refractory cachexia is characterized by a low performance score (e.g., WHO grade 3 or 4) and a life expectancy of less than three months.

CONCLUSION

Consensus recommendations and guidelines recommend the early identification of patients with cancer-associated malnutrition that includes effective nutrition intervention and symptom control. Maintenance of muscle mass is key to preserving strength, quality of life, treatment tolerance and survival.

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